claims are readable on the Form D monohydrate species: 124-126, 139-140, 161-166, 197-208, 211-212, 215, 223-229, 231, and 247-250.

Preliminary Amendment

Please amend the above-identified patent application as follows.

IN THE CLAIMS:

Please cancel claims 1-123.

Please add the following claims:

124. A zolpidem hemitartrate hydrate.

125. The hydrate of claim 124, wherein the hydrate is a monohydrate.

126. The hydrate of claim 125, wherein the zolpidem hemitartrate is a Form D monohydrate.

127. The hydrate of claim 124, wherein the zolpidem hemitartrate is a Form D, wherein the water content is from about 2.3 % to about 2.7 % by weight.

128. The hydrate of claim 124, wherein the zolpidem hemitartrate is a Form L, wherein the water content is about 4.3% by weight.

129. The hydrate of claim 124, wherein the hydrate is a dihydrate.

130. The dihydrate of claim 129, wherein the zolpidem hemitartrate is a Form L dihydrate.

131. The dihydrate of claim 129, wherein the zolpidem hemitartrate is a Form E dihydrate.

132. The hydrate of claim 124, wherein the hydrate is a trihydrate.

133. The trihydrate of claim 132, wherein the zolpidem hemitartrate is a Form E trihydrate.

134. The hydrate of claim 124, wherein the hydrate is a tetrahydrate.

135. The tetrahydrate of claim 134, wherein the zolpidem hemitartrate is a Form E tetrahydrate.

136. The hydrate of claim 124, wherein the zolpidem hemitartrate is a Form E, wherein the water content is from about 5.0% to about 8.5% by weight.

137. The hydrate of claim 124, wherein the hydrate is a 2/3 hydrate.

138. The hydrate of claim 124, wherein the hydrate is a Form A 2/3 hydrate.

139. The hydrate of claim 124, wherein the zolpidem hemitartrate hydrate is in the form of

particles having a size of up to about 200 microns.

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140. The hydrate of claim 139, wherein the zolpidem hemitartrate hydrate is in the form of particles having a size of up to about 50 microns.

141. A zolpidem hemitartrate solvate.

142. The solvate of claim 141, wherein the zolpidem hemitartrate is a Form D hemiethanolate.

143. The solvate of claim 141, wherein the solvate is selected from the group consisting of zolpidem hemitartrate isopropanol, zolpidem hemitartrate butanol, zolpidem hemitartrate ethylacetate and zolpidem hemitartrate acetone.

144. The solvate of claim 141, wherein the zolpidem hemitartrate is a Form F methanolate.

145. The solvate of claim 144, wherein the methanol content is about 5.5% by weight.

146. The solvate of claim 141, wherein the zolpidem hemitartrate is a Form G solvate.

147. The hydrate of claim 141, wherein the zolpidem hemitartrate hydrate is in the form of particles having a size of up to about 200 microns.

148. The hydrate of claim 147, wherein the zolpidem hemitartrate hydrate is in the form of particles having a size of up to about 50 microns.

149. A zolpidem hemitartrate anhydrous.

150. The zolpidem hemitartrate anhydrous of claim 149, wherein the water content is not more than 1%.

151. The zolpidem hemitartrate anhydrous of claim 149, wherein the hemitartrate is Form C.

152. The zolpidem hemitartrate anhydrous of claim 149, wherein the zolpidem hemitartrate hydrate is in the form of particles having a size of up to about 200 microns.

153. The zolpidem hemitartrate anhydrous of claim 152, wherein the zolpidem hemitartrate hydrate is in the form of particles having a size of up to about 50 microns.

154. The zolpidem hemitartrate of claim 149, with water content of not more than 1%.

155. Zolpidem hemitartrate Form C, characterized by an X-ray powder diffraction pattern having peaks at about 7.3, 9.5, 17.8 and 23.8 ± 0.2 degrees two-theta.

156. The zolpidem hemitartrate of claim 155, further characterized by an X-ray powder diffraction pattern having peaks at about 10.7, 12.4, 13.0, 13.8, 14.6, 16.2, 18.9, 19.5, 20.3, 21.3, 23.5, 25.0, and 27.0 ± 0.2 degrees two-theta.

157. The zolpidem hemitartrate of claim 155, having particles up to about 200 microns in size, as measured by laser diffraction.

158. The zolpidem hemitartrate of claim 155, having particles up to about 50 microns in size as measured by laser diffraction.

159. A pharmaceutical composition comprising a therapeutically effective amount of the zolpidem hemitartrate of claim 155, and a pharmaceutically acceptable carrier.

160. A method for treating a patient suffering from insomnia by administering a therapeutically effective amount of the zolpidem hemitartrate Form C.

161. Zolpidem hemitartrate Form D, characterized by an X-ray powder diffraction pattern having peaks at about 7.1, 9.5, 14.1, 19.6 and 24.5 ±0.2 degrees two-theta.

162. The zolpidem hemitartrate of claim 161, further characterized by an X-ray powder diffraction pattern having peaks at about 8.4, 10.2, 12.2, 12.9, 13.2, 15.9, 16.3, 17.7, 18.8, 21.0, 21.7, 23.0, 23.6, 25.9, 26.5, 30.0, and 30.6 ± 0.2 degrees two-theta.

163. The zolpidem hemitartrate of claim 161, having particles up to about 200 microns in size, as measured by laser diffraction.

164. The zolpidem hemitartrate of claim 161, having particles up to about 50 microns in size, as measured by laser diffraction.

165. A pharmaceutical composition comprising a therapeutically effective amount of the zolpidem hemitartrate of claim 161, and a pharmaceutically acceptable carrier.

166. A method for treating a patient suffering from insomnia by administering a therapeutically effective amount of zolpidem hemitartrate Form D.

167. Zolpidem hemitartrate Form E, characterized by an X-ray powder diffraction pattern having peaks at about 5.2, 7.9, 10.4, 17.2, 18.0 and 18.8 ±0.2 degrees two-theta.

168. The zolpidem hemitartrate of claim 167, further characterized by an X-ray powder diffraction pattern having peaks at about 6.8, 11.0, 13.7, 14.2, 15.8, 16.1, 19.7, 20.1, 22.2, 24.4, 25.2, 25.9, 28.5, 31.0, 31.8 and 32.5 ±0.2 degrees two-theta.

169. The zolpidem hemitartrate of claim 167, having particles up to about 200 microns in size, as measured by laser diffraction.

170. The zolpidem hemitartrate of claim 167, having particles up to about 50 microns in size,

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as measured by laser diffraction.

171. A pharmaceutical composition comprising a therapeutically effective amount of the zolpidem hemitartrate of claim 167 and a pharmaceutically acceptable carrier.

172. A method for treating a patient suffering from insomnia by administering a therapeutically effective amount of the zolpidem hemitartrate Form E.

173. Zolpidem hemitartrate Form F, characterized by an X-ray powder diffraction pattern having peaks at about 7.6 and 18.0 ± 0.2 degrees two-theta.

174. The zolpidem hemitartrate of claim 173, further characterized by an X-ray powder diffraction pattern having peaks at about 9.0, 12.2, 12.7, 15.7, 16.7, 17.3, 19.6, 21.6, 24.3, 24.7, 25.7, and 26.1 ±0.2 degrees two-theta.

175. The zolpidem hemitartrate of claim 173, having particles up to about 200 microns in size, as measured by laser diffraction.

176. The zolpidem hemitartrate of claim 173, having particles up to about 50 microns in size, as measured by laser diffraction.

177. A pharmaceutical composition comprising a therapeutically effective amount of the zolpidem hemitartrate of claim 173, and a pharmaceutically acceptable carrier.

178. A method for treating a patient suffering from insomnia by administering a therapeutically effective amount of the zolpidem hemitartrate Form F.

179. Zolpidem hemitartrate Form G, characterized by an X-ray powder diffraction pattern having peaks at about 6.8 ±0.2 degrees two-theta.

180. The zolpidem hemitartrate of claim 179, further characterized by an X-ray powder diffraction pattern having peaks at about 8.3, 8.7, 9.5, 12.2, 13.3, 15.0, 15.7, 17.5, 18.7, 19.5, 20.2, 21.4, 24.7, and 26.2 ±0.2 ± 0.2 degrees two-theta.

181. The zolpidem hemitartrate of claim 179, having particles up to about 200 microns in size, as measured by laser diffraction.

182. The zolpidem hemitartrate of claim 179, having particles up to about 50 microns in size, as measured by laser diffraction.

183. A pharmaceutical composition comprising a therapeutically effective amount of the zolpidem hemitartrate claim 179, and a pharmaceutically acceptable carrier.

184. A method for treating a patient suffering from insomnia by administering a therapeutically effective amount of the zolpidem hemitartrate Form G.

185. Zolpidem hemitartrate Form H, characterized by an X-ray powder diffraction pattern having peaks at about 7.7, 17.4, 18.0 and 24.3 ±0.2 degrees two-theta.

186. The zolpidem hemitartrate of claim 185, further characterized by an X-ray powder diffraction pattern having peaks at about 6.7, 7.7, 9.0, 9.5, 12.2, 13.2, 13.9, 15.7, 16.8, 19.6, 21.7, 24.7, 25.7, and 26.2 ± 0.2 degrees two-theta.

187. The zolpidem hemitartrate of claim 185, having particles up to about 200 microns in size, as measured by laser diffraction.

188. The zolpidem hemitartrate of claim 185, having particles up to about 50 microns in size, as measured by laser diffraction.

189. A pharmaceutical composition comprising a therapeutically effective amount of the zolpidem hemitartrate of claim 185, and a pharmaceutically acceptable carrier.

190. A method for treating a patient suffering from insomnia by administering a therapeutically effective amount of the zolpidem hemitartrate Form H.

191. Zolpidem hemitartrate Form L, characterized by an X-ray powder diffraction pattern having peaks at about 6.8, 9.7, 17.3, 19.6 and 21.1 ±0.2 degrees two-theta.

192. The zolpidem hemitartrate of claim 191, further characterized by an X-ray powder diffraction pattern having peaks at about 7.5, 10.6, 13.2, 13.9, 16.4, 17.7, 21.6, 23.2, 23.6, 26.3, 27.1 and 29.7 ± 0.2 degrees two-theta.

193. The zolpidem hemitartrate of claim 191, having particles up to about 200 microns in size, as measured by laser diffraction.

194. The zolpidem hemitartrate of claim 191, having particles up to about 50 microns in size, as measured by laser diffraction.

195. A pharmaceutical composition comprising a therapeutically effective amount of the zolpidem hemitartrate of claim 191, and a pharmaceutically acceptable carrier.

196. A method for treating a patient suffering from insomnia by administering a therapeutically effective amount of the zolpidem hemitartrate Form L.

197. A method for synthesizing zolpidem hemitartrate, comprising the steps of:

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(a) forming a zolpidic acid halide from the zolpidic acid;

(b) reacting zolpidem acid halide with dimethyl amine to form zolpidem base;

(c) forming zolpidem hemitartrate salt from the zolpidem base.

198. The method of claim 197, wherein the step of forming a zolpidic acid halide further comprises using DMF as a co-solvent for the reaction to facilitate the contact of thionylchloride and zolpidic acid.

199. The method of claim 197, further comprising using toluene as a crystallization solvent to purifies effectively zolpidem.

200. The method of claim 197, further comprising using DMF as co-solvent to improve the purification effect of zolpidem.

201. The method of claim 197, further comprising using toluene as a transport medium for the effective removal of the excess of thionylchloride from the reaction mass.

202. The method of claim 197, wherein the step of forming a zolpidic acid halide further comprises, using toluene as a reaction medium in which the acid chloride precipitates avoiding the undesired additional chlorination reaction of zolpidic acid.

203. The method of claim 197, wherein the step of forming a zolpidic acid halide further comprises, using toluene as a crystallization solvent for zolpidem and acid chloride.

204. The method of claim 197, wherein the step of forming a zolpidic acid halide further comprises, using toluene as a reaction medium for "one pot" reaction from zolpidic acid to zolpidem.

205. The method of claim 197, wherein the halide is chloride.

206. The method of claim 205, wherein the step of forming the acid chloride is performed using thionyl chloride.

207. The method of claim 205, wherein the step of forming the acid halide is performed using toluene as a solvent.

208. The of method of claim 197, further comprising the step of forming a crystal form of zolpidem hemitartrate.

209. The method of claim 197, further comprising the step of crystallizing the zolpidem hemitartrate Form A from the solution.

210. The method of claim 197, further comprising the step of heating zolpidem hemitartrate to a temperature from about 70°C to about 150°C to form zolpidem hemitartrate Form C.

211. The method of claim 210, wherein the zolpidem hemitartrate is a form selected from the group of zolpidem hemitartrate polymorphs consisting of Forms A, D, E, F, and G, H, L.

212. The of method of claim 197, further comprising the step of exposing zolpidem hemitartrate to vapors of ethanol to form zolpidem hemitartrate Form D.

213. The process of claim 212, wherein the zolpidem hemitartrate is a crystal form of zolpidem hemitartrate, selected from the group of crystal forms of zolpidem hemitartrate consisting of Form A and Form C.

214. The of method of claim 197, further comprising the step of exposing zolpidem hemitartrate to water vapor at a relative humidity of about 100% to form zolpidem hemitartrate Form E.

215. The method of claim 214, wherein the zolpidem hemitartrate is a crystal form of zolpidem hemitartrate selected from the group of crystal forms of zolpidem hemitartrate consisting of Form A, Form C and Form D.

216. The method of claim 197, further comprising the step of exposing zolpidem hemitartrate to vapors of methanol to form zolpidem hemitartrate Form F.

217. The method of claim 216, wherein the zolpidem hemitartrate is a crystal form of zolpidem hemitartrate selected from the group of a crystal forms of zolpidem hemitartrate consisting of Form A and Form C.

218. The method of claim 197, further comprising the step of exposing zolpidem hemitartrate Form A to vapors of ethyl acetate to form zolpidem hemitartrate Form G.

219. The method of claim 197, further comprising the step of slurrying zolpidem hemitartrate Form A in ethanol to form zolpidem hemitartrate Form H.

220. The method of claim 197, further comprising:

(a) dissolving zolpidem hemitartrate in a solvent mixture of methanol and water;

(b) precipitating zolpidem hemitartrate from the solvent mixture; and,

(c) isolating zolpidem hemitartrate,

to form zolpidem hemitartrate Form L.

221. A process for preparing zolpidem hemitartrate Form C, comprising the steps of exposing zolpidem hemitartrate Form A to vapors of isopropyl alcohol.

222. A process for preparing zolpidem hemitartrate Form C, comprising the step of heating zolpidem hemitartrate to a temperature from about 70°C to about 150°C for a sufficient time to convert zolpidem hemitartrate to Form C .

223. A process for preparing zolpidem hemitartrate Form D, comprising the step of exposing zolpidem hemitartrate Form A to water vapor at a relative humidity from about 60% to about 100%.

224. A process for preparing zolpidem hemitartrate Form D, comprising the step of exposing Form C to water vapor at a relative humidity of about 100%.

225. A process for preparing zolpidem hemitartrate Form D, comprising the step of exposing zolpidem hemitartrate Form A to vapors of ethanol.

226. A process for preparing zolpidem hemitartrate Form D, comprising the step of exposing zolpidem hemitartrate Form C to vapors of ethanol.

227. A process for preparing zolpidem hemitartrate Form D, comprising the step of forming a slurry of zolpidem hemitartrate Form A in ethylacetate.

228. A process for preparing zolpidem hemitartrate Form D, comprising the step of forming a slurry of zolpidem hemitartrate Form A in acetone.

229. A process for preparing zolpidem hemitartrate Form D, comprising the step of granulating zolpidem hemitartrate Form A in isopropanol.

230. A process for preparing zolpidem hemitartrate Form C, comprising the step of forming a slurry of zolpidem hemitartrate Form A in isopropanol.

231. A process for preparing zolpidem hemitartrate Form D, comprising the step of granulating zolpidem hemitartrate Form A in butanol.

232. A process for preparing zolpidem hemitartrate Form E, comprising the step of exposing a solid form of zolpidem hemitartrate to water vapor at a relative humidity of about 100%.

233. A process for preparing zolpidem hemitartrate Form E, comprising the step of forming a slurry of a solid form of zolpidem hemitartrate in water.

234. A process for preparing zolpidem hemitartrate Form E, comprising the step of granulating

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a solid form of zolpidem hemitartrate in water.

235. A process for preparing zolpidem hemitartrate Form F, comprising the step of exposing a solid form of zolpidem hemitartrate to vapors of methanol.

236. A process for preparing zolpidem hemitartrate Form G, comprising the step of exposing zolpidem hemitartrate Form A to vapors of ethyl acetate.

237. A process for preparing zolpidem hemitartrate Form G, comprising the step of forming a slurry of zolpidem hemitartrate Form C in ethanol.

238. A process for preparing zolpidem hemitartrate Form G, comprising the step of forming a slurry of zolpidem hemitartrate Form C in methanol.

239. A process for preparing zolpidem hemitartrate Form G, comprising the step of granulating zolpidem hemitartrate Form C in ethanol.

240. A process for preparing zolpidem hemitartrate Form G, comprising the step of granulating zolpidem hemitartrate Form C in methanol.

241. A process for preparing zolpidem hemitartrate Form H, comprising the step of slurrying zolpidem hemitartrate Form A in ethanol.

242. A process for preparing zolpidem hemitartrate Form H, comprising the step of slurrying zolpidem hemitartrate Form A in methanol.

243. A process for preparing zolpidem hemitartrate Form H, comprising the step of granulating zolpidem hemitartrate Form A in ethanol.

244. A process for preparing zolpidem hemitartrate Form H, comprising the step of granulating zolpidem hemitartrate Form A in methanol.

245. A process for preparing zolpidem hemitartrate Form L, comprising the step of:

(a) dissolving zolpidem hemitartrate in a solvent mixture of methanol and water;

(b) precipitating zolpidem hemitartrate from the solvent mixture; and,

(c) isolating zolpidem hemitartrate.

246. The process of claim 245, wherein the solvent mixture of methanol and water is at a ratio of about 13 parts methanol to about 1 part water.

247. A pharmaceutical composition comprising a therapeutically effective amount of zolpidem hemitartrate of claim 124, wherein the zolpidem hemitartrate hydrate is in the form of

particles having a size of up to about 200 microns, as measured by laser diffraction, and a pharmaceutically acceptable carrier.

248. The pharmaceutical composition of claim 247, wherein the zolpidem hemitartrate particles are selected from the group consisting of Form A, Form B, Form C, Form D, Form E, Form F, Form G, Form H and Form L.

249. The pharmaceutical composition of claim 247, wherein the particles have a size of up to about 50 microns.

250. The pharmaceutical composition of claim 249, wherein the zolpidem hemitartrate particles are selected from the group consisting of Form A, Form B, Form C, Form D, Form E, Form F, Form G, Form H and Form L.

251. A pharmaceutical composition comprising a therapeutically effective amount of zolpidem hemitartrate of claim 141, wherein the zolpidem hemitartrate hydrate is in the form of particles having a size of up to about 200 microns, as measured by laser diffraction, and a pharmaceutically acceptable carrier.

252. The pharmaceutical composition of claim 251, wherein the zolpidem hemitartrate particles are selected from the group consisting of Form A, Form B, Form C, Form D, Form E, Form F, Form G, Form H and Form L.

253. The pharmaceutical composition of claim 251, wherein the particles have a size of up to about 50 microns.

254. The pharmaceutical composition of claim 249, wherein the zolpidem hemitartrate particles are selected from the group consisting of Form A, Form B, Form C, Form D, Form E, Form F, Form G, Form H and Form L.

255. A pharmaceutical composition comprising a therapeutically effective amount of zolpidem hemitartrate of claim 149, wherein the zolpidem hemitartrate hydrate is in the form of particles having a size of up to about 200 microns, as measured by laser diffraction, and a pharmaceutically acceptable carrier.

256. The pharmaceutical composition of claim 255, wherein the zolpidem hemitartrate particles are selected from the group consisting of Form A, Form B, Form C, Form D, Form E, Form F, Form G, Form H and Form L.

257. The pharmaceutical composition of claim 255, wherein the particles have a size of up to about 50 microns.

258. The pharmaceutical composition of claim 257, wherein the zolpidem hemitartrate particles are selected from the group consisting of Form A, Form B, Form C, Form D, Form E, Form F, Form G, Form H and Form L.

259. Micronized zolpidem hemitartrate Form A having particles up to about 200 microns in size as measured by laser diffraction and an x-ray diffraction pattern having a peak at about 8.6 ±0.2 degrees two-theta.

260. The zolpidem hemitartrate of claim 259, further characterized by an x-ray diffraction pattern having peaks 6.7, 11.2, 15.4 and 17.3 ±0.2 degrees two-theta.

Remarks

The pending claims have been cancelled and replaced with new claims for the convenience of the Examiner. Specifically, the claims were regrouped into an easier-to-follow order, and some of the original independent claims were made dependent. Claims 137 and 138 are completely new.

In view of the complexity of the claims, the Examiner is encouraged to contact the undersigned attorney to discuss any matter relating to this application.

Respectfully submitted,

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